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Department of
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DIVISION OF RADIATION
CONTROL
Dane L. Finerfrock
Director

October 25, 2006

CERTIFIED MAIL
RETURNED RECEIPT REQUESTED

Mr. Harold R. Roberts
Vice President – Corporate Development
International Uranium Corporation (IUC)
Independence Plaza, Suite 950
1050 Seventeenth Street
Denver, CO 80265

SUBJECT: IUC's February 6, and February 13, 2006 Response to the Utah Division of Radiation Control (DRC) to November 22, 2005 letter of Findings and Request for Additional Information, **Contamination Investigation (CI) and Corrective Action Plan (CAP) – DRC Findings, Conditional Approval, and Notice of Intent to Schedule Hearing Before the Board.**

Dear Mr. Roberts:

We have reviewed the February 6, 2006 submittal concerning the CI and CAP, and the February 13, 2006 submittal for a work plan for installation of an additional chloroform well and well abandonment, conversion and re-completion in response to DRC November 22, 2005 letter of Findings and Request for Additional Information. DRC has the following comments on both IUC submittals.

IUC FEBRUARY 6, 2006 SUBMITTAL

Some unresolved issues continue regarding the chloroform Groundwater CI and Groundwater CAP as follows:

I. Groundwater CI Report

1. Source Identification and Delineation

Source Identification – IUC responded that the elevated concentrations of chloroform in wells TW4-20 and TW4-21 near the two former leach fields, combined with chloroform concentrations below laboratory detection limits in new wells MW-29, MW-30, and MW-31 its likely that the chloroform contamination source is from the old leach fields and not from existing Tailing Cells.

Based on this information, further speculation of investigation of other sources is unnecessary.

DRC accepts the IUC position that the two former leach fields are the source for chloroform contamination in the groundwater in the upper most aquifer below the Mill site. However, should chloroform concentrations be discovered in any other monitoring wells the Tailing Cells source will need to be reevaluated.

Source Delineation – IUC responded that the chloroform concentrations in TW4-21 are decreasing from 192 μg/L to 86 μg/L since well completion. Therefore, it is not necessary to install an additional well to the north until additional sampling events have or have not confirmed the downward trend in the contaminant level. For the western plume boundary IUC feels that well MW-28 with its none detectable concentrations, will serve for this purpose.

DRC disagrees. The plume is not bounded to the north of TW4-21 and well MW-28 is too far west (approximately 1600 feet) to appropriately bound the plume. Please be advised that it is IUC's responsibility to bound the plume in all directions with monitor wells that exhibit chloroform concentrations below GWQS (70 μg/L). The eastern margin the plume is bound by a well spacing interval that ranges about 450 feet (i.e. distance between: TW4-3 to TW4-12; TW4-2 to TW4-13). Please provide a comparable well spacing interval and install at least one more well north of TW4-21 and another west of TW4-22 to define the chloroform plume boundary.

It is important to design these additional well in order to demonstrate that the capture zone for the pumping wells extends to beyond the chloroform contaminant plume; i.e. 70 μg/L isoconcentration boundary.

Within 30 days of the receipt of this letter, please provide a work plan and schedule to drill and install wells to bound the chloroform plume.

2. Define Chloroform Plume Boundaries between Monitor Well MW-32 (former TW4-17) and TW4-4

This issue was covered by IUC in the February 13, 2006 submittal, see page 5 in section 3 below.

3. Joint Survey

IUC response: IUC discussed the DRC concern for additional information and description of the core material with Stewart Smith (HGC) and Larry Casebolt (reporting geologist), and concluded that it cannot provide any additional interpretation of the core material beyond that which is already presented. The description in the logs contained in the August 3, 2005 HGC report does in fact make numerous references to the presence or lack of joints and fractures, with a description of the surface and joint types possible. Many or the core interval descriptions contained some reference to "partings", and or "mineralized" or "weathered" surfaces. Based on a review by Mr. Smith, the presence of large open fractures that could control groundwater flow is not evident based on hydraulic testing conducted to date. Were groundwater influenced by fractures, the impact of dual porosity resulting from storage in fractures and storage in matrix should be present in hydraulic test data. Because a dual porosity effect has not been evident in the hydraulic test data, and because the presents of large open were not evident in the core, it is highly unlikely that fractures control perched groundwater flow at the site. As a result, it is IUSA's opinion that no further work is required

DRC response: Please have Mr. Stewart Smith deliver a signed statement(s), on a well by well basis, to document and verify IUC's claim.

Although the August 3, 2005 HGC report does make numerous references to the presence or lack of joints and fractures with a description of the surface and joint types possible, there are several core intervals that do not describe fracture types. Photographs seen in the report "*Perched Monitoring Well Installation and Testing at The White Mesa Uranium Mill April Through June 2005 (HGC 2005)*" show core samples with fractures; however, no fracture descriptions were provided in the corresponding logs. Some examples are: MW-3A, core interval 70 - 80 feet; MW-24, core interval 110-120 feet; and TW-4-22, core interval 90-100 feet. In future core logs please identify and describe all fracture types.

4. Schedule to Complete CI

IUC Response: IUC committed to complete and submit a groundwater CI report within 60 days of the date of their response letter dated February 6, 2006 i.e. April 6, 2006.

DRC Findings: As of this date the CI Report is still incomplete as evidenced by the information needs above. Within 30 days of the receipt of this letter please submit a detailed schedule for completion and submittal of the groundwater CI report for Executive Secretary Approval.

IUC should be advised, that the CI and CAP must be performed under the direction, and bear the seal, of a professional engineer or professional geologist as required in UAC R317-6-6.15(D)(3).

II. Final CAP

IUC Response: *"See IUSA's response to comments in Items I.1 and I.4. These responses from IUC address the status of characterization and delineation of the sources of chloroform contamination at the site."*

DRC Findings: The February 6, 2006 submittal failed to provide a commitment for a work plan and schedule to complete the CAP. Within 30 days of the receipt of this letter please provide a detailed schedule for completion of the CAP that adequately addresses all issues and information needs as required in UAC R317-6-6.15(E)

III. Unsolved and Additional Issues From the March 9, 2005 DRC Letter (pp. 4-8)

1. Hydraulic Capture of Chloroform

IUC Response: IUC provided an updated water level contour map in the 4th quarter (December 2005 water levels) Chloroform Monitoring Report, submitted January 31, 2006. From this map IUC concluded that additional additional observation wells would provide no more meaningful information.

DRC Findings: We agree, as long as: 1) pumping wells MW-4, MW-26, TW4-19, and TW4-20 are operating continuously and simultaneously, 2) a performance standard of constant and continuous drawdown elevations for each pumping well is established in the CAP that will demonstrate hydraulic capture of the chloroform plume i.e. the plume's isoconcentration envelope is within the capture zone created by the pumping wells, 3) the plume is adequately bound north of well TW4-21 and south of TW4-22 with chloroform concentrations below GWQS

(70 μg/L), and 4) new well TW4-23[(to be installed between well TW4-4 and MW-32 (formally TW4-17)] has chloroform concentrations below the GWQS.

IUC should be advised, that although chloroform concentrations in well TW4-6 are below the GWQS, the reported concentrations appear to be increasing from < 1.0 μg/L (non-detection) in 1st quarter 2005 to 19 μg/L in the 2nd quarter 2006 groundwater monitoring event. Should future chloroform concentrations exceed GWQS at TW4-6, the plume will no longer be bound to the south and additional monitoring and pumping well(s) will need to be installed further south to adequately monitor and capture the chloroform contamination in the groundwater.

2. Capturing Chloroform Concentrations at TW4-16 and TW4-4

IUC Response: IUC committed to submit a proposal and work plan for groundwater flow and contaminant transport model that will support MNA on March 31, 2006.

DRC Findings: The *Work Plan Evaluation of Fate and Transport of Chloroform Detected In The Perched Groundwater White Mesa Uranium Mill Near Blanding, Utah* (HGC 2006) was received by the DRC on April 3, 2006. Review of this submittal will be completed for DRC by the URS Corporation. As discussed in our September 8, 2006 meeting, ground water modeling is a lengthy and iterative process. In order to ensure timely development and implementation of a CAP, it is imperative to focus first on hydraulic containment and control of the chloroform plume. Therefore, DRC review and approval of the groundwater transport modeling effort will be undertaken as part of a future revision to the CAP, and not resolved at this time.

3. Complete Well TW4-4 as a Pumping Well

IUC Response: IUC committed that the completion of well TW4-4, as a permanent monitoring well, will be addressed in the work plan for the groundwater flow and contaminant transport model, which was promised to be submitted on March 31, 2006.

DRC Findings: Based on the discussion above, it is imperative that this issue be de-coupled from the ground water modeling effort. Please provide a schedule for completion of well TW4-4 as a permanent well. Because chloroform concentrations have been found below the GWQS (70 μg/L) in this well, only groundwater head and water quality monitoring is required. Should concentrations at this well exceed the GWQS in the future, this position well be re-evaluated.

4. Well Completion and Development: 1) Permanent well Completions, 2) Abandonment MW-4A, and 3) Well Re-completions

This is covered in the February 13, 2006 IUC submittal in sections 5 and 6 below.

6. Perched Zone Groundwater Hydraulic Testing (TW4-3, TW4-4, TW4-6, TW4-11, TW4-12, and TW4-13)

This is covered in the February 13, 2006 IUC submittal in section 7 below.

7. Need for Permanent Monitor Well Completions

This is covered in the February 13, 2006 IUC submittal in section 6 below.

8. Operations and Reporting Plan, and Maintenance Plan for Pumping System

The Operations and Maintenance Plan that was submitted to the DRC on January 12, 2006, was received on January 17, 2006 and is currently under review.

10. Groundwater Monitoring Quality Assurance Plan (QAP)

IUC Response: No comments have been received from DRC (a QAP was submitted to DRC on May 26, 2006). IUC will continue to use the QAP as submitted until comments are received From DRC.

DRC Findings: DRC findings regarding the QAP were provided to IUC in a DRC letter of October 18, 2006.

11. Content of Quarterly Monitoring Reports

DRC is currently reviewing the quarterly monitoring reports. Based on preliminary review, it appears that IUC is conforming to the new quarterly monitoring report format requested by the DRC.

IUC FEBRUARY 13, 2006 SUBMITTAL

We have reviewed the February 13, 2006 work plan (WP) and hereby approve: 1) the location and installation of the new well TW4-23, 2) the abandonment of well MW-4A, and 3) plan to re-complete wells TW4-19, MW-26 (former TW4-15), and MW-32 (former TW4-17) as permanent monitoring wells. Please provide a schedule for completion of these activities within 30 days of receipt of this letter.

In addition, we have also determined that some modifications need to be made to the WP. Below, modifications are discussed according to the corresponding sections of the WP:

Section 3. Drilling and Logging Methods: For the new well TW4-23, please core the last 20 to 30 feet of the boring to: 1) determine the Brushy Basin contact, and 2) provide more information on open fractures that could control ground water flow. Include a description of each facture in boring logs. Provide photographs of the cores. Complete TW4-23 as a permanent monitor well in accordance to USEPA RCRA Technical Enforcement Guidance Document (TEGD) Chapter 6. Please notify Executive Secretary 30 days before the drilling and installation of TW4-23 to allow DRC staff to observe drilling activities.

Section 5. Well Development and Sampling: Please develop well TW4-23 to the 5 NTU turbidity standard found in the USEPA RCRA TEGD Chapter 6.

Section 6. Well Abandonment, Conversion and Re-completion: IUC requested approval to: 1) abandoned wells MW-4A, TW4-3, and TW4-5, 2) convert wells TW4-12 and TW4-14 as piezometers, and 3) re-complete wells TW4-19, MW-26 (former TW4-15), and MW-32 (former TW4-17) with a gravel pack.

As stated above the Executive Secretary approves the abandonment of MW-4A.

Contrary to your request, wells TW4-3, TW4-5, TW4-12, and TW4-14 must be re-completed as permanent wells and remain as part of the monitor network because:

TW4-3 - provides valuable groundwater level measurements for groundwater gradients and groundwater contour maps. However, because chloroform concentrations in TW4-3 well have been below the laboratory detection limit [(<1 μg/L) well below the Groundwater Quality Standards (GWQS) (70 μg/L)] for the last 13 consecutive quarterly monitoring events (since the 2nd quarter 2003 monitoring event), at this time IUC will only need to measure quarterly groundwater levels and does not need to collect water quality samples. However, in the future if DRC could again require TW4-3 to be sampled.

TW4-5 – with the exception of the last three quarterly groundwater monitoring events (4th quarter 2005, 1st quarter, and 2nd quarter 2006) chloroform concentration have exceeded the GWQS (70 μg/L). Therefore, monitoring for VOCs in this well must continue.

TW4-12 – the non-detectable chloroform concentration in this well helps define the east boundary of the chloroform plume.

TW4-14 - this well helps define the east boundary of the chloroform plume.

As stated above the Executive Secretary approves the re-completion TW4-19, MW-26 (former TW4-15), and MW-32 (former TW4-17) as permanent monitor wells. Also, monitor wells TW4-3, TW4-5, TW4-12, and TW4-14 must be re-completed as permanent monitor wells and developed to the 5 NTU turbidity standard in accordance to USEPA RCRA TEGD Chapter 6.

In addition, IUC must add to the WP steps to re-complete temporary monitor wells TW4-1, TW4-2, TW4-4, TW4-6, TW4-7, TW4-8, TW4-9, TW4-10, TW4-11, TW4-13, TW4-16, and TW4-18 to permanent monitor wells, including development to the 5 NTU turbidity standard in accordance to USEPA RCRA TEGD Chapter 6.

Section 7. Aquifer Testing: Hydraulic testing on wells TW4-3, TW4-4, TW4-6, TW4-11, TW4-12, and TW4-13 must be performed after well re-completion to permanent monitor wells and well development. Testing must determine local aquifer hydraulic conductivity. Please provide both aquifer test results and the analysis and interpretation thereof.

Section 8. Reporting: Please submit revised well completion diagrams and construction schematics on wells that have been re-completed as permanent monitoring wells and/or abandoned.

Please submit a schedule for Executive Secretary approval within 30 days of the receipt of this letter.

SUMMARY OF UNRESOLVED ISSUES

The following are unresolved issues:

- The plume is not bound to the north of well TW4-21 and west of well TW4-22. Consequently, it is unknown if the current program of aquifer provides adequate hydraulic control containment north and west of these wells.

- A signed letter delivered by Mr. Stewart Smith is required to verify IUC's claim it is highly unlikely that fractures control perched groundwater flow at the site.

- IUC committed to have a groundwater CI report within 60 days of the date of their response letter dated February 6, 2006 i.e. April 6, 2006. As of this date the CI Report is still incomplete.

- Schedule to complete the CAP for Executive Secretary approval.

- The CI and CAP must be performed under the direction, and bear the seal, of a professional engineer or professional geologist as required in UAC R317-6-6.15(D)(3).

- Schedule for completion of several temporary wells to permanent monitoring wells and submittal of revised well completion diagrams for Executive Secretary approval, including: MW-26 (formally TW4-15), MW-32 (formally TW4-17), TW4-1, TW4-2, TW4-3, TW4-4, TW4-5, TW4-6, TW4-7, TW4-8, TW4-9, TW4-10, TW4-11, TW4-12, TW4-13, TW4-14, TW4-16, TW4-18, and TW4-19.

- Schedule for abandonment of well MW-4A, and submittal of an As-Plugged Report for Executive Secretary approval.

- Schedule for installation of new monitoring well TW4-23 as a permanent monitoring well, and submittal of a well completion diagram for Executive Secretary approval.

- Schedule for submittal of aquifer test results, and analyses for Executive Secretary approval new well TW4-23, and all temporary wells converted to permanent wells.

It is urgent that the CI and CAP be finalized and exposed to public comment in accordance with UAC R317-6-615(E). Failure to remit the above requested schedules within 30 days of receipt of this letter, will result in the scheduling of a hearing before the appropriate statutory Board, as per your request in the Parson's, Behle, and Latimer letter of September 20, 1999.

Thank you for your continued cooperation. Please contact Dean Henderson at 801-536-0046 with any questions.

Sincerely,

Dane L. Finerfrock, Director
Utah Division of Radiation Control

DLF/DCH:dh

cc: Rob Herbert, DWQ
Bill VonTill, NRC – Washington, D.C.